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ABSTRACT

The best check on the preposterous claims of crisis rhetoric is an appreciation of the nature of risk analysis and how it functions in argumentation. The use of risk analysis is common in policy debate. While the stock issues paradigm focused the debate exclusively on the affirmative case, the advent of policy systems analysis has transformed debate into an evaluation of competing policy systems. Unfortunately, the illusion of objectivity masks several serious problems with risk analysis as it is presently used in academic debate. Risk analysis artificially assigns probability to arguments and overvalues arguments with large impacts. Four suggestions can dramatically improve the use of risk analysis in policy debate: (1) some risks are so trivial that they are not meaningful; (2) the increment of risk must be considered; (3) debaters must not become enslaved to large impacts; and (4) debaters must rehabilitate the importance of uniqueness arguments in debate. (Twenty-one notes are included.) (RS)

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THE USE AND ABUSE OF RISK ANALYSIS IN POLICY DEBATE

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THE USE AND ABUSE OF RISK ANALYSIS IN POLICY DEBATE

Robert Gass has observed that debate theory lags behind debate practice. According to Gass, "theoretical innovations have typically appeared first in debate practice and only later in journal articles and convention papers."[1] This is not necessarily a bad thing, in Gass's mind, as he agrees with William Balthrop's claim that "through the activity of debate itself . . . many of the theoretical positions of the community are examined and resolved."[2]

While it is undoubtedly true that debate works itself pure,[3] purging weak theoretical positions through the crucible of competition, we believe that critics of debate can also play a useful role in this process. Toward that end, in this paper we will develop a critique of risk analysis as it is presently used in policy debate. The paper explores this subject in three sections: the first section chronicles the rise of risk analysis, the second section identifies several problems with risk analysis as applied in contemporary debate, and

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[1]Robert H. Gass, Jr., "Theoretical Arguments in Debate Rounds: Toward A Justification," Journal of the American Forensic Association 23 (Spring 1987): 222.

[2]V. William Balthrop, "The Debate Judge as 'Critic of Argument': Toward a Transcendent Perspective," Journal of the American Forensic Association 20 (1983): 1.

[3]This imagery is drawn from Jamie Kalven "Editor's Introduction," in Harry Kalven, Jr., A Worthy Tradition: Freedom of Speech in America (New York: Harper & Row, 1988), p. xvii.

the final section offers several suggestions for improving the use of risk analysis in policy argument.

Risk Analysis in Policy Debate

The use of risk analysis is common in policy debate. While the stock issues paradigm focused the debate exclusively on the affirmative case, the advent of policy systems analysis has transformed debate into an evaluation of competing policy options. Rather than focusing primarily on the merits of the affirmative case, debaters now attempt to compare two or more policy alternatives. Allan Lichtman, Daniel Rohrer, and Jerome Corsi, have argued:

> The contention that evaluation of policy propositions inherently involves comparative judgments is a fundamental precept of contemporary decisions theory. The verbal statement that policy choice demands the comparison of alternative policy systems has been formalized by the following simple inequality equation: $NB^a > NB^n$. This equation means that policy a is chosen only if the net benefits (NB) of policy a are greater than those of any perceived alternative (n) to policy a.[4]

In any debate then, the goal is to determine which of the policies is superior. Given this conception of debate, it is not surprising that the use of risk analysis is widespread in debate. Risk analysis, by design, provides a method for assessing policies. Further, because it produces a statement of risk, risk analysis allows policy makers to compare distinct policy alternatives.

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[4]Allan J. Lichtman, Daniel M. Rohrer, and Jerome Corsi, "Policy Systems Analysis in Debate," in Advanced Debate, 4th ed., edited by David A. Thomas and John P. Hart (Lincolnwood, IL: National Textbook, 1992), p. 276.

Since risk analysis is drawn from the literature on policy making, it seems appropriate to rely on that literature to define the terms. William Rowe defines risk as "the potential for harm."[5] Definitions such as this are really suggesting that risk is nothing more than the probability of encountering negatively-valued events.[6] Since negatively-valued events can differ drastically in consequence, it is necessary to add some means for valuing them to our equation. Recognizing this fact, Paul and Anne Ehrlich define risk as follows:

> Risk is sometimes used as a synonym for "probability" in insurance policies--the risk of a loss. In analyzing issues like those discussed in this chapter, "risk" means the consequences of an event multiplied by its probability (or frequency) of occurrence--or, to put it another way, risk is a probability of a bad consequence.[7]

For the purposes of this paper, the Ehrlich's definition of risk can be expressed in the following equation:

RISK = PROBABILITY X IMPACT

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[5]William D. Rowe, "Evaluation of Risks Involving Rare Events," in Aaron Wildavsky, Searching for Safety (New Brunswick: Transaction Books, 1988), p. 3.

[6]See Wildavsky, p. 3.

[7]Paul R. Ehrlich and Anne H. Ehrlich, Healing the Planet: Strategies for Resolving the Environmental Crisis (Reading, MA: Addison-Wesley, 1991), p. 218.

The utility of such a conception of risk should be obvious. In a debate, advocates attempt to prove the desirability of policies by demonstrating risks. The affirmative argues that the plan will prevent risks, while the negative argues that the plan will cause risks. At the end of the debate, the decision maker compares risk and opts for the policy that produces either the greatest benefit, or perhaps, the policy that produces the lesser of evils.

The Abuse of Risk Analysis

At first glance, it might appear that the introduction of risk analysis into academic debate would improve the quality of decisions rendered. After all, risk analysis provides a seemingly objective way of comparing the impact of competing policy options. Further, risk analysis would seem to devalue the subjectivity inherent in the communication of information. Unfortunately, we believe that the illusion of objectivity masks several serious problems with risk analysis as it is presently utilized in academic debate. While a number of problems might be identified, in this paper we argue first that risk analysis artificially assigns probability to arguments and second, that risk analysis overvalues arguments with large impacts.

The "Tyranny of Illusory Precision."[8] At the outset, it should be noted that it is extremely difficult to assess probability. In an article on risk which appeared in Psychology Today, Dr. J. Frank Yates observed that "the average person has problems identifying potential risks and deciding how likely they

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[8]The phrase "tyranny of illusory precision" is taken from John Holdren, "The Risk Assessors," Bulletin of Atomic Scientists, June/July 1983, p. 33.

are to occur."[9] In addition, Yates suggests that most of us overestimate the value of our own judgment in matters of common knowledge.[10]

It might of course, be argued that debate judges trained in the use of risk analysis are better able to assess risks. This, however, is frequently not the case. In one of the few articles on risk analysis in the forensic literature, Vincent Follert offered this example drawn from the final round of the 1978 National Debate Tournament:

> After exposure to the same information, each judged reached what appeared to be substantially different estimates of the probability that the plan would prompt government cuts in the biomedical research budget: "Biomedical research would probably be cut as a result of the plan," "the affirmative goes a long way towards eliminating the risks . . . of cuts," "I am left with a substantial risk," and "the risk of cuts seems less significant than the case."[11]

Those of us who judge debate with some frequency know that while it is difficult to quantify probabilities, risk analysis forces us to assign probabilities to all arguments in a debate. As a result, we may come under, as John Holdren would call "the tyranny of illusory precision." This phenomenon

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[9]"Risky Business, Problem Solving Without Anxieties," Psychology Today, September 1992, p. 15.

[10]See "Risky Business," p. 15.

[11]Vincent Follert, "Risk Analysis: Its Application to Argumentation and Decision-Making," Journal of the American Forensic Association 18 (Fall 1981): 101. In this example, Follert refers to critiques by Charles Kaufman, Ralph Carbone, Charles Garvin, and Roger Solt.

occurs whenever we take qualitative judgments, decouple them from their context, and then use these judgments to assign a probability which is used to justify conclusions.

Even if we resist the temptation to assign unwarranted risks, a related problem is that decision makers often fall prey to the fallacy of the golden mean. According to Edward Damer, this "fallacy consists in assuming that the mean or middle view between two extremes must be the best or right one simply because it is the middle view."[12] In other words, rather than assess zero probability to an impact, a judge might assume that the probability necessarily lies somewhere between the two positions advocated in the debate. Recognizing this tendency, advocates have become quite adept at framing their arguments to justify the attribution of some amount or probability. Consider, for example, the following quotation from Unberto Saffiotti of the National Cancer Institute: "The most 'prudent' policy is to consider all agents, for which the evidence is not clearly negative under accepted minimum conditions of observation as if they were positive."[13] Of course, the implication is that we must assess some probability of carcinogenicity absent proof to the contrary. Evidence such as this, when invoked in debate, is often used to justify the claim that there must be some risk of the impact.

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[12]T. Edward Damer, Attacking Faulty Reasoning (Belmont, CA: Wadsworth, 1980), p. 47.

[13]Umberto Saffiotti, quoted by Márgaret N. Maxey, "Managing Environmental Risks," Society, March/April 1992, p. 43.

The "Zero-Infinity Problem."[14] A second problem with risk analysis is that the magnitude of the impact has come to dominate questions or probability. The result, according to Ehrlich and Ehrlich, is the "zero-infinity problem." Although the probability of some events is infinitesimally small, the impacts may be so grave that the risk becomes significant. To illustrate this point, the Ehrlich's cite the example of pancreatic cancer. Although the probability of getting this form of cancer is extremely small, it is almost always fatal. Accordingly, the fear of contracting pancreatic cancer might be sufficient to warrant measures which would be unlikely to decrease the incidence of this deadly disease.

It is easy to translate the zero-infinity problem to the debate context. Consider the following risks:

probability	impact	risk
99 in 100	100,000 lives	= 99,000 lives
1 in 100	10,000,000	= 100,000 lives

Of course, the conclusion that can be drawn from the above example is that a low probability/high impact argument would generally outweigh a high probability/low impact argument. Being perceptive by nature, debaters are well aware of this fact. It is, therefore, not surprising that the vast majority of all debate arguments eventually culminate in a nuclear war. By offering the penultimate of impacts, the skilled advocate can effectively moot the importance of probability.

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[14]The phrase "zero-infinity problem" is taken from Ehrlich and Ehrlich, p. 221.

For the purpose of illustration, assume that a nuclear war would kill exactly one billion people, which may in fact be a conservative assessment. The incredible argumentative power of this staggering impact is evident in the following statement of risks:

probability	impact	risk
1 in 100 (.01)	1,000,000,000	= 10,000,000 lives
1 in 1000 (.001)	1,000,000,000	= 1,000,000 lives
1 in 10,000 (.0001)	1,000,000,000	= 100,000 lives
1 in 100,000 (.00001)	1,000,000,000	= 10,000 lives
1 in 1,000,000 (.000001)	1,000,000,000	= 1,000 lives

In other words, a 1 in 10,000 chance of a disadvantage culminating in nuclear war would be the equivalent of an affirmative saving 100,000 lives.

Not surprisingly, low probability/high impact arguments have come to dominate contemporary debate. Indeed, if a stranger should hear a debate upon this year's intercollegiate policy topic, they would probably conclude that any change in development policy, no matter how small, is likely to culminate in a nuclear war. As Star Muir has observed:

> This takes form in two disturbing tendencies: an unwillingness to examine more real world impacts of policies, and a jaded view of global devastation. That first is apparent in the unwillingness of the debaters to argue that a recession, per se, is bad; that a regional war, not escalating to superpower conflict, would be a horrible thing. A global recession would probably not cause a nuclear war, but it doubtless would cause untold suffering and human anguish. A regional war in Africa could cost hundreds

> of thousands of lives, easily enough to outweigh a properly mitigated set of case scenarios. The problem is that debaters won't tell these stories, but they will take the easy way out and read a blurb on World War III.[15]

Of course, the problem with such argumentation is that it frequently borders on the absurd.

Improving Risk Analysis

It is easy to indict the use of risk analysis in policy debate. The more difficult task is to frame an alternative. As a tool, risk analysis offers a uniquely valuable method of assessing and comparing a variety of competing policy alternatives. It is, simply put, difficult to imagine how you could evaluate without some notion of risk analysis. Recognizing this fact, Vincent Follert offered the following guidelines in his article critiquing the use of risk analysis in debate:

> Each disputant should justify numerical estimates of the probability and valence of outcomes. Debaters could give more attention to the analytical assumptions made by their opponents. Such tests may also be applied to the evidence offered in the debate. Statistical tests may also be applied to the evidence and models used. Finally, the disputants should argue in favor of a

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[15]Star A. Muir, "Doomsday Scenarios ad Nauseam: The Disadvantage as a Blunt Instrument," paper presented at the 1989 Eastern Communication Association Convention, Ocean City, Maryland.

> particular perspective which allows the critic to make comparisons of dissimilar alternatives.[16]

While we appreciate the spirit and intent of Follert's suggestions, we question their workability in the debate setting. How could debaters meaningfully measure the probability associated with some of the arguments in debate? How can assumptions, seldom expressed in the debate, be factored into the decision? How would statistical tests be applied? While risk analysis would be improved if these questions were addressed, it seems impossible to address them meaningfully within current debate formats.

At a more fundamental level, we believe that Follert's guidelines fail to address many of our concerns. Even if a debater could quantify the probability, defend the assumptions underlying that assessment, and apply statistical tests to prove that the risks were statistically significant, we still fear that debate would be enslaved to low probability/high impact scenarios. We believe that a better approach to addressing this problem would be to rehabilitate our notion of probability.

First, and foremost, we need to realize that some risks are so trivial that they are simply not meaningful. This is not to argue that all low probability/high impact arguments should be ignored, but rather to suggest that there is a point beneath which probabilities are meaningless. The problem with low probability arguments in debate is that they have taken on a life of their own. Debate judges routinely accept minimal risks which would be summarily dismissed by business and political leaders. While it has been argued that our leaders should take these risks more seriously, we

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[16]Follert, p. 108.

believe that many judges err in assessing any weight to such speculative arguments.

The solution, of course, is to recognize that there is a line beyond which probability is not meaningfully evaluated. We do not believe it is possible to conclude, given current evidence and formats of debate, that a plan might cause a 1 in 10,000 increase in the risk of nuclear conflagration.[17] Further, even if it were possible, we need to recognize that at some point a risk becomes so small that it should be ignored. As the Chicago Tribune aptly noted, we routinely dismiss the probability of grave impacts because they are not meaningful:

> It begins as soon as we awake. Turn on the light, and we risk electrocution; several hundred people are killed each year in accidents involving home wiring or appliances. Start downstairs to put on the coffee, and you're really asking for it; about 7,000 Americans die in home falls each year. Brush your teeth, and you may get cancer from the tap water. And so it goes throughout the day -- commuting to work, breathing the air, working, having lunch, coming home, indulging in leisure time, going back to bed.[18]

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[17]According to Brooks, a risk of 1 in a million is the risk "you take in driving your car 4 miles; taking a commercial jetliner 2,500 miles; canoeing for six minutes." Warren T. Brookes, "The Wasteful Pursuit of Zero Risk," Forbes, 30 April 1990, p. 160.

[18]William Ecenbarger, "The Home of the Not so Brave," Chicago Tribune Sunday Magazine, 26 July 1992, p 18.

Just as we ignore these risks in our own lives, we should be willing to ignore minimal risks in debates.

Second, we must consider the increment of the risk. All too often, disadvantages claim that the plan will dramatically increase the risk of nuclear war. This might be true, and still not be compelling, if the original risk was itself insignificant. For example, it means little to double the probability of nuclear war if the original probability was only 1 in one million. To avoid this temptation, advocates should focus on the initial probability, and not on the marginal doubling of the risk claimed by the negative.

Third, we must not allow ourselves to become enslaved to large impacts. The fact that the impact is grave, does not, in and of itself, mean that there is any probability associated with the outcome. Consider, for example, a disadvantage which posited that the plan would increase the risk of species extinction. While it is true that species extinction would have serious consequences, this fact should not force us to mindlessly reject any policy that might cause species extinction. Further, we should take care in assessing evidence purporting to prove that a prudent policy maker should reject any action that risks the impact. In other words, evidence claiming that species extinction is the ultimate of all evils is not sufficient to prove that the affirmative case should be summarily rejected.

Finally, we must rehabilitate the importance of uniqueness arguments in debate. When arguing the position is not unique, an advocate is arguing that the disadvantage should already have occurred or will inevitably occur in the status quo. For example, when arguing uniqueness against a budget disadvantage, an affirmative would argue that the President and/or Congress have routinely increased spending. Therefore, such spending should cause the disadvantage.

The problem in debate today is that judges consistently assign some level of risk to disadvantages even when the affirmative presents uniqueness arguments which have a greater link to the disadvantage than the affirmative plan. Consider the following example. Suppose an affirmative team advocated a plan which provided for increased military training of Bangladesh's army under the International Military Education and Training Program (IMET). Against this plan, suppose the negative advocated a disadvantage claiming that increased U.S. influence in Bangladesh would cause a loss of Indian influence in Bangladesh, causing them to lash-out as a way of reclaiming their influence in South Asia. Given the fact that the United States has given Bangladesh over 3 billion dollars over the past 20 years,[19] and given the fact that U.S. influence in South Asia is vastly increasing due to the virtual collapse of Soviet influence in the region,[20] it would be ludicrous to assume that there is any unique risk of India fearing a minimal expansion of the IMET program to Bangladesh. In this example, where the uniqueness arguments prove a greater increase in U.S. influence than will ever occur under the affirmative plan, a judge should conclude that there is zero risk to adopting the affirmative plan.

Unfortunately, many judges in this situation would irrationally assign some minimal risks to the disadvantage. They would reason that there is always some risk, albeit small, to adopting the affirmative plan. Yet, such reasoning makes a mockery of the concept of uniqueness arguments. If a

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[19]See Amy Kaslow, "Bangladesh's Zia Counts on Billions in Aid," Christian Science Monitor, 23 April 1992, p. 6.

[20]See, for example, Mushaid Hussain, "Pakistan Wants to be a Major Player in Central Asia," Inter Press Service, 20 October 1992.

uniqueness argument proves that the status quo actions will be larger than the affirmative's link to the disadvantage, then it has sufficiently demonstrated that there is no unique risk to adopting the affirmative plan. Under these circumstances, the judge should assign zero risk to the disadvantage.

While the four suggestions offered in this paper may seem simplistic, we believe that they could dramatically improve the use of risk analysis in policy debate. Rehabilitating risk analysis, to our way of thinking, is decidedly superior to alternative methods for comparing policies. Admittedly, none of these suggestions is a perfect solution. Advocates will still use risk analysis to their advantage, and judges will still be faced with the difficult task of assigning probabilities and assessing impacts. Still, we hope that the alternatives can serve as useful guides for judges in policy debates.

Conclusion

It is sometimes argued that debate is a laboratory for testing argumentation. Critics of the laboratory metaphor have argued that we have failed as scientists, for we have produced little of consequence in our lab. Perhaps our experience with risk analysis in debate can inform our understanding of the crisis rhetoric which we confront on an almost daily basis. The best check on such preposterous claims, it seems to us, is an appreciation of the nature of risk analysis and how it functions in argumentation. If we understand this tool, we will be well-armed in our battle with the bogeymen of our age.[21]

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[21]The bogeyman imagery is drawn from Dwight R. Lee, "The Perpetual Assault on Progress," Society, March/April 1992, p. 55.